



**PRELIMINARY DELINEATION  
FOR 5,800 ACRES IN GOLDEN VALLEY**

Prepared for

**Rhodes Homes Arizona, LLC**

Prepared by

**SWCA Environmental Consultants**

July 2005



**PRELIMINARY DELINEATION  
FOR 5,800 ACRES IN GOLDEN VALLEY**

**Kingman, Mohave County, Arizona**

Prepared for:  
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SWCA Project No. 9048-166

July 2005

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## 1.0 INTRODUCTION

The purpose of this document is to describe the methodology used to delineate waters of the U.S. (WUS) in the project area and to present the results of the field delineation. This delineation was prepared in anticipation of submittal of a permit application for an Individual Permit in compliance with Section 404 of the Clean Water Act. It is anticipated that the landowner will develop the subject property for residential and commercial uses, but detailed site planning will be completed after a delineation of WUS is approved by the U.S. Army Corps of Engineers (COE) and the area of COE's jurisdiction is determined. Project impacts to WUS will be calculated for multiple alternatives, once a delineation is approved by the COE, to determine the least environmentally damaging, practicable alternative.

## 2.0 PROJECT LOCATION

The project area is located in Golden Valley, approximately 10 miles southwest of the city of Kingman (Figure 1). It encompasses approximately 5,800 acres in Sections 2, 3, 4, 8, 9, 10, 11, 16, and part of 14 and 20 of Township 20 North, Range 18 West and part of Section 34 of Township 21 North, Range 18 West, Mohave County, Arizona (Figure 2). It can be accessed from the north from State Highway 68 and Aztec Road and from the east from Interstate 40 and Old Highway 66/Oatman Road. The parcels are owned by Rhodes Homes Arizona, LLC. The land surrounding the project area contains a mixture of privately owned parcels and land managed by the U.S. Bureau of Land Management. The project area and surrounding land contain a low density, rural residential community and relatively undisturbed desert.

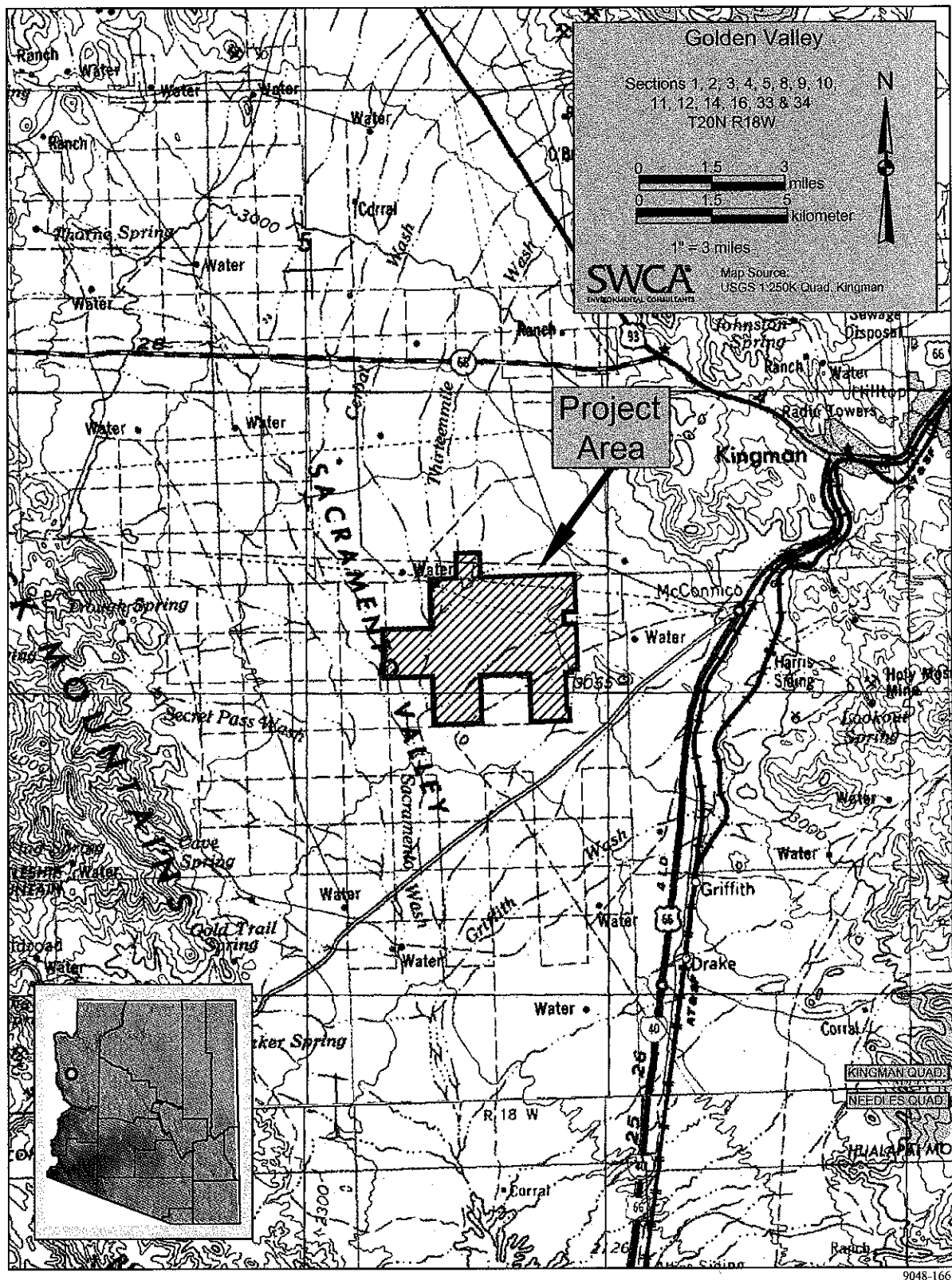
The project area occurs in the Mojave creosote bush scrub vegetation community at an elevation of approximately 2,800 feet above mean sea level. Several large washes traverse the project area, including the Sacramento Wash, Battleship Wash, and Halfway Wash. In some areas, these washes become very braided and divide into multiple smaller washes. All of the washes in the project area are ephemeral. Vegetation in and along the washes is sparse and consists mostly of low growing shrubs and herbaceous plants. Typical vegetation in the project area includes creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), Mormon tea (*Ephedra* spp.), burrobrush (*Hymenoclea salsola*), various grasses, and some cactus species. Mesquite (*Prosopis* sp.) is present in some of the washes.

## 3.0 PRELIMINARY DELINEATION

### 3.1 Methodology

Prior to conducting the field surveys, Geographic Information System (GIS) technicians mapped the project area using 2004 aerial photographs. Field maps were produced at a scale of 1"=400', which required multiple sheets to cover the entire project area. The project area boundary was uploaded into handheld Garmin Geographic Positioning System (GPS) units, which were used to record the sample point locations.





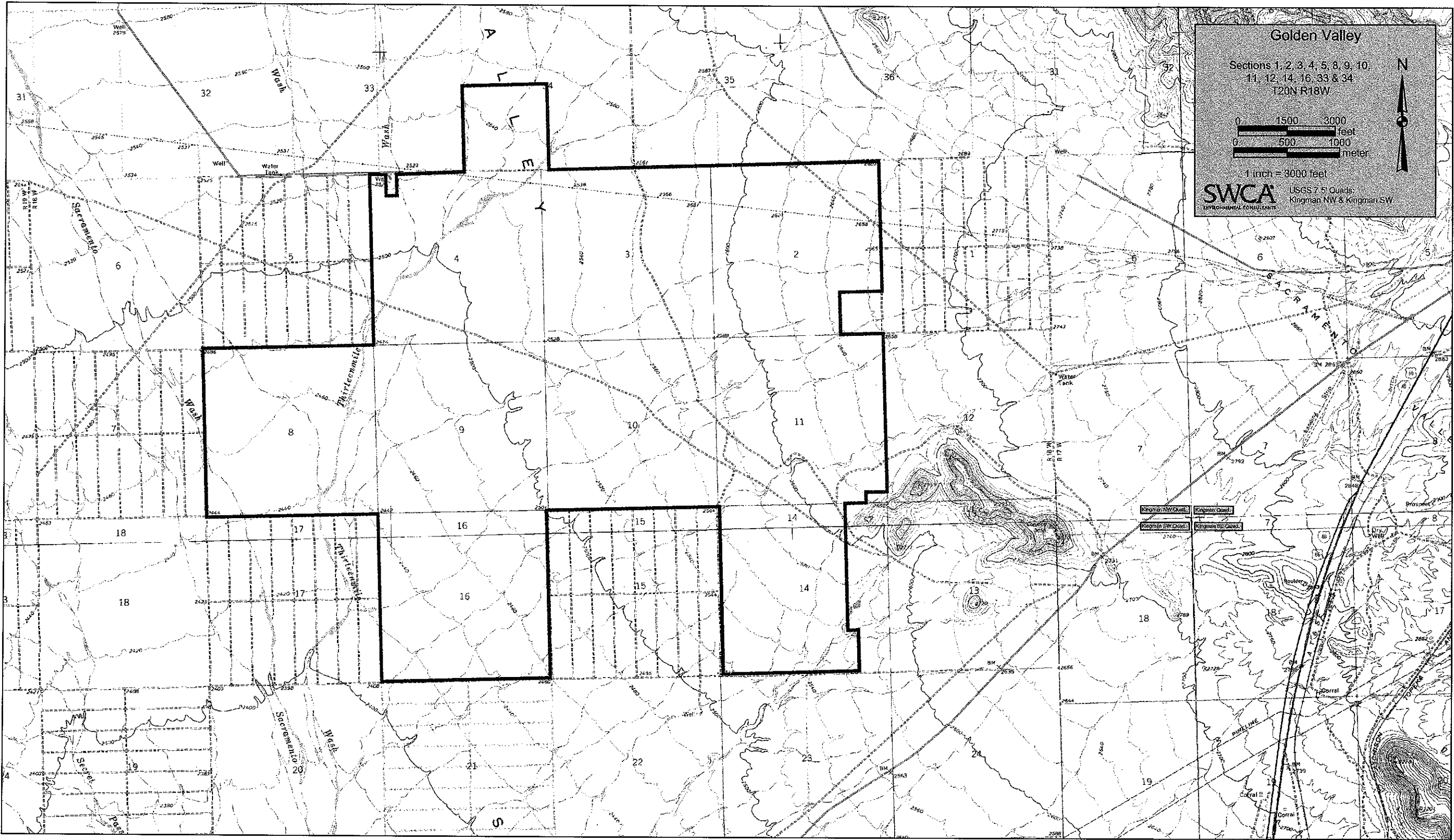


Figure 2. Project area location



Biologists familiar with delineating jurisdictional waters in the arid southwest conducted field surveys on January 6, 7, 12, and 13 and February 8, 2005. The biologists used existing dirt roads to access the project area and conduct pedestrian surveys to locate representative sample points along the washes. The sample points were selected based on the indicators of ordinary high water (OHW); new sample points were identified approximately every 200 meters or where the OHW width substantially changed. Data collected at each sample point were recorded on forms and included the GPS coordinates of the point, OHW width of the wash at the point, presence or absence of riparian vegetation, and other observations relevant to the delineation. Photographs of the washes were also taken at each sample point using a digital camera.

The definition of the OHW mark was applied to each drainage at each sample point to determine if it met the criteria to fall within the jurisdiction of the COE. The OHW mark for non-tidal streams is defined as the "line on the shore established by the fluctuations of water and is indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter or debris, or other appropriate means that consider the characteristics of the surrounding area" (33 CFR Part 328.3). The *Review of Ordinary High Water Mark for Delineating Arid Streams in the Southwestern United States* (Engineer Research and Development Center 2004) and *Guidelines for Jurisdictional Determinations* (COE 2001) were also used as guidance for determining COE jurisdiction of drainages within the project area. Drainages that did not exhibit a distinct OHW width and were overgrown with upland vegetation were not considered a WUS. Drainages that did not connect to another drainage downstream were considered isolated from WUS and were also not considered a WUS.

Following the field surveys, the GPS coordinates of the sample points were uploaded into a GIS database. A graphics technician used a combination of the field data and aerial photo interpretation to draw the ordinary high water limits onto the electronic copy of the aerial photograph. Once the polygons were complete they were quality controlled checked by a field delineator. After the quality control check, Arc View, a GIS program, was used to complete area calculations and then to export the calculations to a text file used to create Table 1 below.

### 3.2 Results

No wetlands occur within the 5,800-acre study area. Fifty-five drainages totaling approximately 73.2 acres were preliminarily identified as WUS in the project area. All WUS in the project area consist of ephemeral drainages. Representative photographs of drainages in the project area are provided in Appendix B. The locations of each sample point and its ordinary high water width are shown on the aerial photographs located in the map pockets (Appendix C).

**Table 1.** Summary of Potential Waters of the U.S. Identified within the Golden Valley Project Area

Drainage or Area ID	Area (m2)	Area (ac)
A	21972.00	5.43
B	16040.79	3.96
B1	698.54	0.17
C	4696.63	1.16

*5,800 Acres in Golden Valley  
Preliminary Delineation*

**Table 1.** Summary of Potential Waters of the U.S. Identified within the Golden Valley Project Area, continued

D	63366.36	15.66
D1	13416.17	3.32
D2	2328.73	0.58
D3	72.80	0.02
D4	367.35	0.09
D5	394.74	0.10
D6	250.22	0.06
D7	7795.00	1.93
D8	5515.92	1.36
D9	253.87	0.06
E	5466.99	1.35
E1	5855.42	1.45
F	5090.79	1.26
F1	384.96	0.10
F2	178.47	0.04
G	6406.34	1.58
G1	80.85	0.02
G2	239.85	0.06
H	433.05	0.11
I	587.75	0.15
J	822.89	0.20
J1	149.41	0.04
K	286.36	0.07
L	77546.75	19.16
L1	954.89	0.24
L2	1869.71	0.46
L3	1938.07	0.48
L4	1911.88	0.47
L5	330.46	0.08
L6	1241.89	0.31
L7	4363.66	1.08
L8	1559.14	0.39
M	14025.28	3.47
M1	1032.44	0.26
M2	292.27	0.07
M3	567.70	0.14
M4	412.58	0.10
N	225.46	0.06
O	4398.20	1.09
O1	1644.25	0.41
P	8437.90	2.09
Q	976.98	0.24
Q1	254.24	0.06
R	491.02	0.12
S	148.21	0.04
T	633.46	0.16
U	4180.84	1.03
U1	933.49	0.23
U2	284.35	0.07
V	2184.31	0.54
V1	233.85	0.06
<b>Totals</b>	<b>296225.53</b>	<b>73.20</b>



#### **4.0 REFERENCES**

Engineer Research and Development Center. 2004. Review of ordinary high water mark indicators for delineating arid streams in the southwestern United States. Edited by Robert W. Lichvar and James S. Wakeley. Prepared for Office of the Chief of Engineers and Environmental Protection Agency. January.

U.S. Army Corps of Engineers (USACE). 2001. Final summary report: guidelines for jurisdictional determinations for waters of the United States in the arid Southwest. South Pacific Division, USACE. June.

*5,800 Acres in Golden Valley  
Preliminary Delineation*

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**APPENDIX A**

**LANDOWNER AUTHORIZATION**

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**RHODES HOMES ARIZONA, LLC**

June 17, 2005

Mr. Eric Koster  
SWCA Environmental Consultants  
2820 West Charleston Blvd, Suite 15  
Las Vegas, Nevada 89102

RE: Golden Valley and White Hills

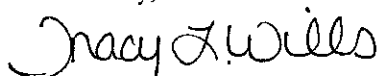
Dear Mr. Koster:

Enclosed please find the original documents for filing with the U.S. Army Corps of Engineers for the jurisdictional water delineation/Section 404 applications for Golden Valley and White Hills:

1. Statement of Authorization for Golden Valley South project (APN 306-63-014);
2. Copy of Deeds transferring the Golden Valley parcel into the name of South Dakota Conservancy, LLC;
3. Statement of Authorization for White Hills projects (APNs 317-49-062, 317-36-032, and 317-56-003); and
4. Copy of Deeds transferring the three White Hills parcels into the name of Sedora Holdings, LLC.

The Statements of Authorization have been signed by Kirk Brynjulson as a representative of Rhodes Homes Arizona on behalf of the owning companies. Should you have any questions, please do not hesitate to contact our office.

Sincerely,



Tracy L. Wills  
Paralegal

/tlw

Enclosures

June 17, 2005

U.S. Army Corps of Engineers  
Regulatory Section  
3636 North Central Avenue, Suite 900  
Phoenix, Arizona 85012-1936

Statement of Authorization

As the landowner SOUTH DAKOTA CONSERVANCY, LLC, I, Kirk Brynjulson, hereby designate and authorize SWCA Environmental Consultants (SWCA) to act on our behalf as the agent for the jurisdictional water delineation application and/or the agent for the Section 404 application under Section 404 of the Clean Water Act and to furnish, upon request, supplemental information in support of this delineation/application. Correspondence related to the project should be directed to SWCA.

I authorize SWCA and the U.S. Army Corps of Engineers to access the project area GOLDEN VALLEY SOUTH, Parcel 1A of Section 34, Township 21 North, Range 18 West of the Gila and Salt River Base and Meridian, Mohave County, Arizona, known as tax map 306-63-014, for purposes of conducting any necessary fieldwork that is required to complete this permit application. If there are any questions concerning this authorization, please contact me (Kirk Brynjulson) at either 928-718-2210 (office) or 702-325-9578 (cell).

**KIRK BRYNJULSON**

Applicant Name (printed)

6/17/05  
Date

  
Applicant Signature

\_\_\_\_\_  
Title

Applicant Company Name (if applicable)

**SOUTH DAKOTA CONSERVANCY, LLC**



INDEXED MICROFILMED



2005005027 BK 5394 PG 32  
OFFICIAL RECORDS OF MOHAVE COUNTY  
JOAN MC CALL, MOHAVE COUNTY RECORDS  
01/14/2005 04:30P PAGE 1 OF 2  
FIRST AMERICAN TITLE INS CO  
RECORDING FEE 14.00

Recording Requested by:  
First American Title Insurance Agency of Mohave, Inc.

When recorded mail to:  
SOUTH DAKOTA CONSERVANCY LLC  
attn: Matt Lawson, 4730 S. Ft. Apache Rd.  
Las Vegas, NV 89147

EXEMPT ARS 11 113488

## WARRANTY DEED

File No. 292-4385733 (plib)

For the consideration of TEN AND NO/100 DOLLARS, and other valuable considerations, I or we,

**Aztec 80, An Arizona limited partnership**, the GRANTOR does hereby convey to

**First American Title Insurance Agency of Mohave, Inc., an Arizona Corporation**, as Trustee under Trust No. 9026 and not personally, the GRANTEE

the following described property situate in **Mohave County, Arizona**:

**Parcels 1A, 2A, 3A, 4A, and 5A shown on Parcel Plat recorded April 9, 1996, in Book 11 of Parcel Plats, Page 60, being a division of the Northeast quarter of the Southeast quarter (NE1/4 SE1/4) of Section 34, Township 21 North, Range 18 West of the Gila and Salt River Base and Meridian, Mohave County, Arizona.**

**Except all oil and gas, as reserved in the Patent to said land recorded in Book 1130 of Official Records, Page 726.**

Pursuant to ARS 33-404, Beneficiaries names and addresses under said trust(s) are disclosed in Book 4526 Page 288.

**Subject To:** Existing taxes, assessments, liens, encumbrances, covenants, conditions, restrictions, rights of way and easements of record.

And the GRANTOR binds itself and its successors to warrant the title as against its acts and none other, subject to the matters set forth.

DATED: December 14, 2004

**Aztec 80**

  
Authorized Signor

250-62-114

A.P.N.: 306-63-015

Warranty Deed - continued

File No.: 292-4385733 (pib)

PAGE 2 OF 2  
BK 5374 PG 328 FEE#2005005027

STATE OF

ARIZONA

County of

Mohave

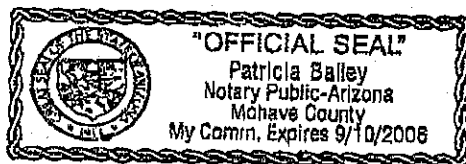
) ss.

On January 13 2005, before me, the undersigned Notary Public, personally appeared Jim Ruden, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

My Commission Expires:

Patricia Bailey  
Notary Public



Recording Requested by:  
First American Title Insurance Agency of Mohave, Inc.

When recorded mail to:  
SOUTH DAKOTA CONSERVANCY LLC  
attn: Matt Lawson, 4730 Ft. Apache Rd. Ste 300  
Las Vegas, NV 89147



INDEXED MICROFILMED  
2005005028 BK 5394 PG 32  
OFFICIAL RECORDS OF MOHAVE COUNTY  
JDAN MC CALL, MOHAVE COUNTY RECORD  
01/14/2005 04:31P PAGE 1 OF 2  
FIRST AMERICAN TITLE INS CO  
RECORDING FEE 16.00

## SPECIAL WARRANTY DEED

(Trust)

File No. 292-4385733 (pib)

Trust No. 9026

For the consideration of TEN AND NO/100 DOLLARS, and other valuable considerations, **First American Title Insurance Agency of Mohave, Inc., an Arizona Corporation**, as TRUSTEE, under Trust No. 9026, and not personally the GRANTOR herein, does hereby convey to

**SOUTH DAKOTA CONSERVANCY LLC**, a Nevada Limited Liability Company, the GRANTEE,

the following described property situate in **Mohave County, Arizona**:

**Parcels 1A, 2A, 3A, 4A, and 5A shown on Parcel Plat recorded April 9, 1996, in Book 11 of Parcel Plats, Page 60, being a division of the Northeast quarter of the Southeast quarter (NE1/4 SE1/4) of Section 34, Township 21 North, Range 18 West of the Gila and Salt River Base and Meridian, Mohave County, Arizona.**

**Except all oil and gas, as reserved in the Patent to said land recorded in Book 1130 of Official Records, Page 726.**

The disclosure of trust beneficiaries is recorded in **Book 4526 Page 288.**

**Subject To:** Existing taxes, assessments, covenants, conditions, restrictions, rights of way and easements of record.

And the GRANTOR binds itself and its successors to warrant the title as against its acts and none other, subject to the matters set forth.

DATED: December 14, 2004

**First American Title Insurance Agency of Mohave, Inc.,**  
as TRUSTEE, and not personally,

By:   
**Patricia Bailey, Trust Officer**

AZtec 80

306-43-014  
306-63-015  
306-63-016  
306-63-017  
306-63-018

A.P.N.: 306-63-015

Warranty Deed - continued

File No.: 292-4385733 (plb)

PAGE 2 OF 2  
BK 5394 PG 330 FEE#2005005028

STATE OF AZ

County of Mohave

)  
)ss.  
)

On 1-14-2005, before me, the undersigned Notary Public, personally appeared Patricia Bailey, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

My Commission Expires:

Kay Woods  
Notary Public

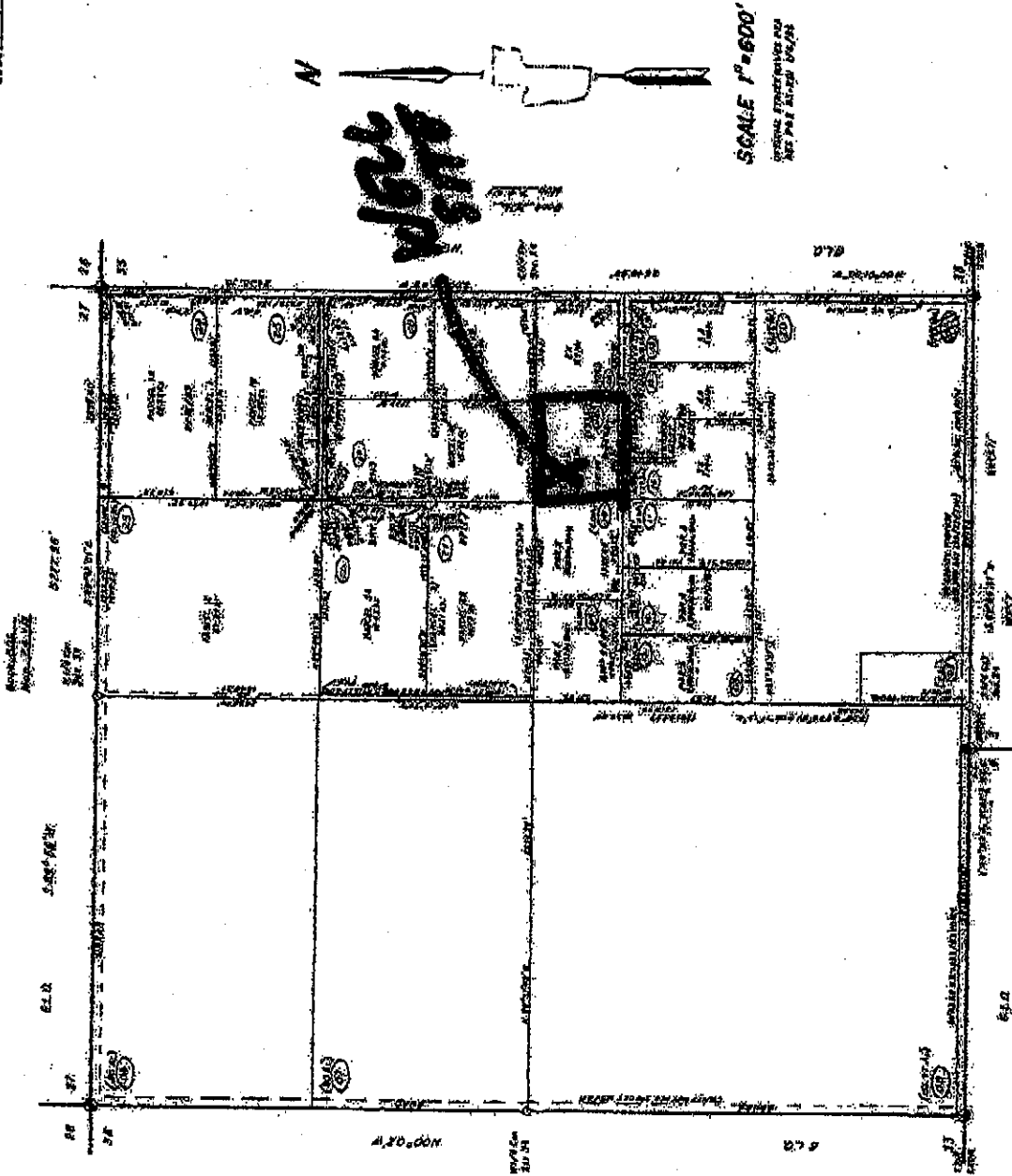




BOOK 306  
MAP 63  
Cont. 0.000

MOHAWE COUNTY  
ASSESSOR'S MAP

SEC. 34, T.21N, R.10W



T.21N, R.10W, 34  
Date: JUNE 16, 2008

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**APPENDIX B**

**SELECTED PHOTOGRAPHS OF PROJECT DRAINAGES**

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## Golden Valley



**Aerial 1, Photo 43.** Wash D2. Wash measures approximately 12 feet wide at this location.



**Aerial 1, Photo 1-52.** Wash D. Wash measures approximately 28 feet wide at this location.



## Golden Valley



**Aerial 1, Photo 1-48.** Due to the lack of consistent channel characteristics and small channel size, SWCA determined this area as not potentially jurisdictional.



**Aerial 2, Photo 1-98.** Due to the lack of consistent channel characteristics and small channel size, SWCA determined this area as not potentially jurisdictional.



## Golden Valley



**Aerial 2, Photo 1-123.** Wash L7. This wash measures 3 feet wide at this location.



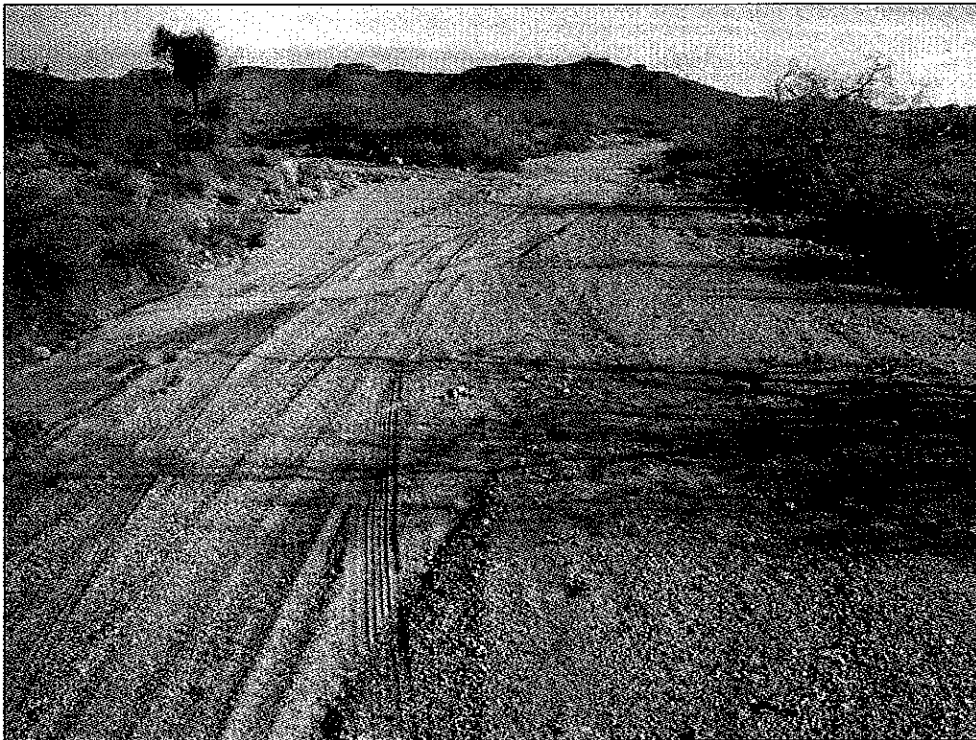
**Aerial 3, Photo 1-117.** Wash P. Wash measures 13 feet wide at this location.



## Golden Valley



**Aerial 3, Photos 1-17.** Wash M. Wash measures approximately 10 feet at this location.



**Aerial 3, Photo 1-112.** Wash L. Wash measures 31 feet wide at this location.

## Golden Valley



**Aerial 3, Photo 1-22.** Wash L7. Wash measures approximately 8 feet wide at this location.



**Aerial 4, Photo 1-28.** Wash O1. Wash measures 4 feet wide at this location.



## Golden Valley



**Aerial 4, Photo 1-132.** Wash U. Wash measures 2.5 feet wide at this location.



**Aerial 5, Photo 1-86.** Wash G. Wash measures 7 feet wide at this location.



## Golden Valley



**Aerial 5, Photo 1-84.** Due to the lack of consistent channel characteristics, SWCA determined this area as not potentially jurisdictional.



**Aerial 6, Photo 1-56.** Wash B. Wash measures 12 feet wide at this location.



## Golden Valley



**Aerial 6, Photo 1-76.** Wash A. Wash measures 40 feet wide at this location.



**Aerial 6, Photo 1-92.** Wash F. Wash measures approximately 7.5 feet wide at this location.



## Golden Valley



**Aerial 6, Photo 1-62.** Wash E1. Wash measures 6.5 feet wide at this location.



**Aerial 7, Photo 1-40.** Wash D1. Wash measures 17 feet wide at this location.

## Golden Valley



**Aerial 7, Photo 1-42.** Wash D. Wash measures 48 feet wide at this location.



**Aerial 8, Photo 1-97.** Wash F1. Wash measures 3 feet wide at this location.